PSYCHE.

A NEW MUSEUM PEST, *TROGODERMA TARSALE* MELS.

BY FRANCIS HUNTINGTON SNOW, LAWRENCE, KANSAS.

In Dr. Hagen's list of "Museum pests observed in Cambridge," published in the Proceedings of the Boston Society of Natural History, vol. 20, I find no mention of the above species, and in order that eastern collectors may guard against its introduction into their cabinets I give the following brief description of its larva and pupa.

LARVA.

Measurements, when full grown: length, exclusive of caudal hairs, 5.4 mm.; including caudal hairs, 8 mm.; breadth 1.6 mm.

Upper dermal surface reddish brown; lower surface vitreous white; entire surface covered with short, soft, yellowish brown hairs; each stigmatic orifice surrounded by a stellate tuft of longer setose hairs, of variable length and of the same color as the general hairy covering. The upper surface of the last three segments is entirely concealed by a dense mass of short, erect, dark brown hairs so nearly equal in length as to present the appearance of having been cut off with shears, like the bristles of a very compact brush. The sides of the upper surface of the two preceding segments have a similar covering. The two caudal appendages, which attain one half the length of the body and are noticeably separated when the larva is in motion, often appear to the eye to consist each of a single, stout, elongated bristle, but, under the microscope, are seen to be composed in each case of from twenty to twenty-five separate hairs.

Larvae infesting cabinet specimens in the autumn remain in their hosts during late autumn and winter, apparently in an inactive condition. From 1 March to 1 April, according to the season, they begin to transform into the pupal state, for which purpose, unless the infested specimen is of large size, they come forth from their places of concealment and are easily observed and destroyed.

PUPA.

Length, 4 mm.; breadth, 2 mm.

Enclosed within the larval skin, and visible only from above, where the larval skin is longitudinally split open along the median dorsal line from head to anal segment. Abruptly narrows to a point at the anal extremity. Removed from larval skin, the entire surface of the pupa is seen to be covered with short, soft, light yellowish brown hairs, except at the centre of dorsal surface which contains three minute transverse incisions or furrows. The anterior margin of each furrow is straight while the posterior margin is curved. Examined under the microscope, both margins of each incision are seen to be minutely dentate, but the teeth of the posterior margins are more prominent than those of the anterior margins. The incisions being in the outer layer of the skin only, these minute teeth may be of use in fixing the pupal skin while the imago emerges from it.

The imagos, first appearing about the middle of March, continue to appear during all the spring and summer months.

For several years this was the only museum pest whose presence was dreaded in the entomological cabinets of the University of Kansas, but for the past three years *Anthrenus varius* has become quite as formidable a foe, having been introduced into the building in some eastern bird skins. Careful watching and the use of tight boxes have prevented serious damage to the collections from either of these pests.

ORGANS, PROBABLY DEFENSIVE IN FUNCTION, IN THE LARVA OF *HYPERCHIRIA VARIA*, WALK. (*SATURNIA IO*, HARRIS).

BY GEORGE DIMMOCK, CAMBRIDGE, MASS.

In examining a larva of *Hyperchiria varia* lately I found on each side a protrusile organ just posterior to, and a trifle below the level of the stigmata of the fourth segment, and a similar organ in the same position relative to the stigmata of the tenth segment, these segments being counted from and excluding the head.

These organs, when retracted, exhibit nothing more than an irregular opening, about half a millimetre in diameter, situated in the reddish lateral line which extends from the anterior part of the fourth segment to the posterior extremity of the larva. In this position they may be easily mistaken for some of the folds of the skin which are numerous along the lateral parts of this larva when at rest.

If the larva be disturbed by slightly touching the spines with which it is covered, and at the same time attention be given to the above-mentioned irregular openings, which should be observed under a lens, each opening will be seen to evaginate and to re-invaginate alternately. When evaginated to about a half a millimetre in height above the surrounding skin the appearance of the organ is very similar to that of a minute sea-anemone or actinia